

ABSTRACT

A method of manufacture of a vehicle mounted rotary concrete mixing drum of the type having an opening at one end for receiving and/or discharge of concrete therefrom and at the other end, means for engaging a drive assembly so as to rotate the drum for mixing or discharging concrete. The drum is manufactured from at least one mould using at least one plastics material and further includes integrally attached vanes which outstand from the internal surface of the drum forming an archimedian spiral disposed such that when the drum is rotated in a first direction. the concrete contents are mixed and when the drum is rotated in a second direction the contents are discharged from the drum; wherein, the method comprises the steps of;

- a) preparing a first generally helical inner mold part containing a surface extending between first and second helical edges;
- b) mounting the first helical inner mould part on a support
- c) enclosing the inner helical mold assembly within an outer mould formed by at least one outer mold part;
- d) fitting a second mating inner helical mold part to the first inner mould part to form an inner mold assembly;
- e) injecting a polyurethane elastomer into a cavity defined by said inner mold assembly and the outer mould assembly to form an inner wall element comprising one half of an interior wall of the mixer and one helical blade;
- f) allowing said polyurethane to cure;
- g) removing said at least one outer mold parts to expose said inner wall element;
- h) removing said inner wall element one of said inner molds;

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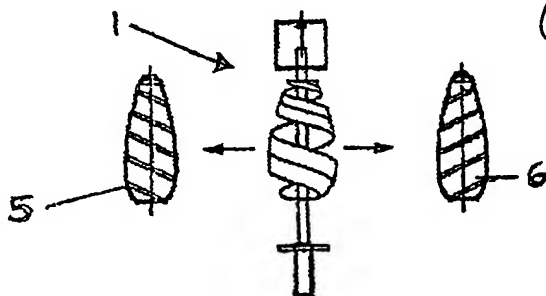
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(54) Title: **VEHICLE MOUNTED CONCRETE MIXING DRUM AND METHOD OF MANUFACTURE THEREOF**



STEP 4 - REMOVE OUTER SECTIONS
STEP 5 - REMOVE INNER MOLD SECTIONS

(57) Abstract: A method of manufacture of a vehicle mounted rotary concrete mixing drum of the type having an opening at one end for receiving and/or discharge of concrete therefrom and at the other end, means for engaging a drive assembly so as to rotate the drum for mixing or discharging concrete. The drum is manufactured from at least one mould using at least plastics material and further includes integrally attached vanes outstand from the internal surface of the drum forming an archimedian spiral disposed such that when the drum is rotated in a first direction, the concrete contents are mixed and when the drum is rotated in a second direction the contents are discharged from the drum; wherein, the method comprises the steps of; a) preparing a first generally helical inner mold part containing a surface extending between first and second helical edges; b) mounting the first helical inner

mould part on a support c) enclosing the inner helical mold assembly within an outer mould formed by at least one outer mold part; d) fitting a second mating inner helical mold part to the first inner mold part to form an inner mold assembly; e) injecting a polyurethane elastomer into a cavity defined by said inner mold assembly and the outer mould assembly to form an inner wall element comprising one half of an interior wall of the mixer and one helical blade; f) allowing said polyurethane to cure; g) removing said at least one outer mold parts to expose said inner wall element; h) removing said inner wall element one said inner molds;